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Studies on Cydnidae of the Australian Region

V. The genus *Chilocoris* Mayr in Australia, Tasmania and Moluccas (Heteroptera)

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Abstract. Representatives of the genus *Chilocoris* Mayr are recorded for the first time from Australia, Tasmania and Moluccas. Three new species, *Ch. australis* (Australia), *Ch. tasmanicus* (Tasmania) and *Ch. bacanicus* (Bacan isl., Moluccas) are described, illustrated and compared with allied species. Notes on two other species recorded for the first time from the Australian continent, namely *Ch. barbareae* Lis and *Ch. biroi* Horváth are also presented.

Key words. Heteroptera, Cydnidae, *Chilocoris*, new species, new records, Australia, Tasmania, Moluccas.

Introduction

Representatives of the genus *Chilocoris* Mayr are distributed in all major faunal regions of the Old World; in the Australian Region its species have been hitherto recorded from New Guinea (Horváth 1919, Lis 1993b), Bismarck Archipelago (Froeschner 1967), and Solomon Islands (Lis 1993a). So far, they have never been reported neither from Australia and Tasmania (Naumann 1991) nor from the Moluccas. Carrying out my studies on the Old World Cydnidae in the Natural History Museum in London (BMNH), and in the National Natural History Museum in Leiden (NNHM) I have found several specimens belonging to the genus *Chilocoris* collected in Australia, Tasmania and Moluccas. They turned out to represent five species — two previously known (*Ch. biroi* Horv., *Ch. barbareae* Lis) and three new to the science (*Ch. australis* n. sp., *Ch. tasmanicus* n. sp., *Ch. bacanicus* n. sp.).

The genus *Chilocoris* belongs to the tribe Cydnini of the subfamily Cydninae; it is the first genus of this tribe reported from the Moluccas, and the second (after *Blaena* Walker) recorded from Australia and Tasmania, so far. Representatives of *Chilocoris* can be easily distinguished from members of *Blaena* by the long corium reaching at least half of the hemelytral length (in *Blaena* the corium is short and occupies about two fifths of the hemelytral length), submargins of head bearing hair-like setae and pegs (in *Blaena* only hair-like setae are present), and eyes not stylated (in *Blaena* eyes are obliquely stylated).

A detailed redescription of the genus *Blaena* with a review of species was presented by Froeschner (1960, 1966); that of the genus *Chilocoris* is given in a revision of the Oriental Cydnidae (Lis 1994). A key to almost all *Chilocoris* species known from the Australian Region was presented in one of my recent papers (Lis 1993 b).

Taxonomy

Chilocoris australis, new species

Description

Body dark castaneous, polished. Head striated, sparsely punctured and with several large punctures behind clypeus; the latter as long as paraclypei and subapically with two pegs; each paraclypeus with a submarginal row of 9 setigerous punctures (6 pegs and 3 hair-like setae); eyes small, almost blackish brown, ocular index 3.58, ocelli yellowish brown; antennae brown; rostrum brown, reaching the middle of mesosternum.

Pronotum with a postmedian, transverse row of punctures (fig. 1); lateral parts slightly transversely wrinkled; anterior lobe almost impunctured except for a few punctures anteromedially and laterally; posterior lobe with irregularly scattered punctures; each lateral margin with three submarginal setigerous punctures; umbones slightly swollen.

Scutellum (fig. 1) with distinct blackish brown basal and lateral rows of punctures, each accompanied by the sulcus; disc weakly punctured with punctures of the same size as those in a postmedian row on pronotum.

Corium punctured with punctures slightly smaller than and of the same size as those on scutellum (fig. 1); clavus with two short rows of punctures; mesocorium with two rows of punctures paralleling clavo-corial suture, and with numerous punctures in the apical half; exocorium with one incomplete row of punctures paralleling mesocorium; costa without setigerous punctures; membrane semihyaline, slightly browned, decidedly surpassing the tip of abdomen.

Propleuron smooth and polished, with a few hardly visible punctures in depression.

Abdominal sternites dark castaneous, glossy in the middle, laterally with numerous well visible punctures bearing long light brown hairs.

Legs castaneous, not specifically modified.

Measurements (in mm): body length 3.41; body width 1.83; head length 0.56; head width 0.75; pronotum length 1.03; pronotum width 1.72; scutellum length 0.91; scutellum width 1.12; antennal segments: 0.18 : 0.10 : 0.22 : 0.24 : 0.29.

Type material

Holotype female: Yallingup, Nr. Cape Naturaliste, S. W. Australia; Sep. 14—Oct. 31, 1913, R. E. Turner, 1914—27; in the collection of BMNH.

Chilocoris tasmanicus, new species

Description

Body dark castaneous. Head slightly wrinkled and with several punctures; clypeus as long as paraclypei and with two subapical pegs; each paraclypeus with a submarginal row of 9 setigerous punctures (6 pegs and 3 hair-like setae); eyes dark brown, ocular index 2.60, ocelli yellowish brown; antennae dark brown; rostrum brown, reaching middle coxae.

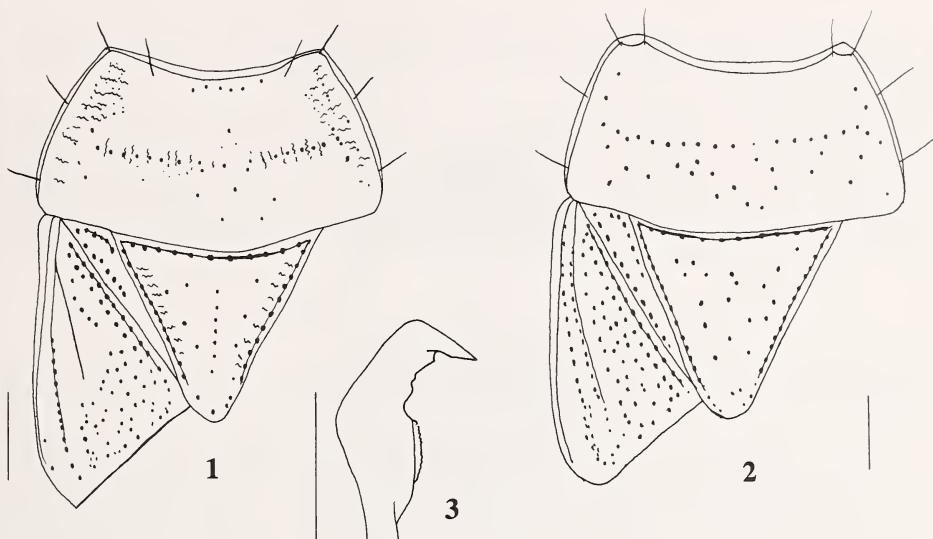
Pronotum with a postmedian, transverse row of punctures (fig. 2); anterior lobe laterally with a few punctures; the posterior with irregularly scattered punctures; each lateral margin with three submarginal setigerous punctures; umbones slightly swollen.

Scutellum (fig. 2) with distinct blackish brown basal and lateral rows of punctures, each accompanied by the sulcus; disc almost evenly punctured with a little more than a dozen punctures of the same size as those on pronotum.

Corium (fig. 2) punctured with punctures of the same size as those on scutellum; clavus with two rows of punctures; mesocorium with two rows of punctures paralleling clavo-corial suture, and with numerous well separated punctures on the remaining surface; exocorium almost impunctured except for a row of punctures paralleling mesocorium; costa without setigerous punctures; membrane almost translucent, slightly browned, somewhat surpassing the tip of abdomen.

Propleuron smooth and polished, with a few hardly visible punctures in depression.

Abdominal sternites dark castaneous, glossy in the middle, laterally with numerous well visible long brown hairs.



Figs 1-3: 1. *Chilocoris australis* n. sp.; 2. *Chilocoris tasmanicus* n. sp.; 3. *Chilocoris biroi* Horv.; 1,2 — puncturation of pronotum, scutellum and corium; 3 — paramere; (scale 0.25 mm).

Legs castaneous, not specifically modified.

Measurements (in mm): body length 4.15; body width 2.33; head length 0.66; head width 0.98; pronotum length 1.22; pronotum width 2.29; scutellum length 1.24; scutellum width 1.41; antennal segments: 0.18 : 0.11 : 0.30 4th and 5th segments missing.

Material examined

Holotype female: Hobart, Tasmania [no other data]; in the collection of BMNH.

Comparative notes

Both new representatives of the genus *Chilocoris* belong to the group of species, which have unicolorous body and the pronotum with a postmedian transverse row of punctures. Within this group they are allied to *Chilocoris entzii* Horváth (New Guinea, Bismarck Archipelago) and *Chilocoris madangicus* Lis (New Guinea). Nevertheless, these four species (*australis*, *entzii*, *madangicus*, *tasmanicus*) can be easily delimited from each other by a number of setigerous punctures on paraclypeus, ocular index, body length, a length ratio of the 3rd to the 2nd antennal segment, and the puncturation of the mesocorium. These characters are, as follows:

— in *Ch. australis*: 9 setigerous punctures (6 pegs and 3 hair-like setae) on each paraclypeus; eyes small, ocular index 3.58; body length 3.41 mm; 3rd antennal segment 2.2 times longer than the 2nd; mesocorium with numerous well separated punctures almost of the same size as those on pronotum;

— in *Ch. entzii*: 6 setigerous punctures (3 pegs and 3 hair-like setae) on each paraclypeus; eyes large, ocular index 1.70-1.80; body length 2.39-2.56 mm; 3rd antennal segment 5.2 times longer than the 2nd; mesocorium almost impunctured;

— in *Ch. madangicus*: 9 setigerous punctures (6 pegs and 3 hair-like setae) on each paraclypeus; eyes large, ocular index 1.80; body length 4.42 mm; 3rd antennal segment 3.8 times longer than the 2nd; mesocorium with numerous crowded tiny punctures, decidedly smaller than those on pronotum;

— in *Ch. tasmanicus*: 9 setigerous punctures (6 pegs and 3 hair-like setae) on each paraclypeus; eye small, ocular index 2.60; body length 4.15 mm; 3rd antennal segment 2.7 times longer than the 2nd; mesocorium with numerous well separated punctures almost of the same size as those on pronotum.

The best characters separating *Ch. tasmanicus* from *Ch. australis* are the ocular index, body length and a length ratio of the 3rd to the 2nd antennal segment. Additionally, in *Ch. australis* the anterior sulcus on the pronotum is laterally straight, while in *Ch. tasmanicus* it is laterally recurved (figs 1 & 2). Unfortunately, both new species are known only from female specimens; I suppose that when eventually males will be studied (especially their genital structures) they will provide more convenient distinguishing characters.

Chilocoris bacanicus, new species

Description

Body highly polished, dark castaneous; head, anterior half of pronotum and scutellum darker in shade.

Head smooth, impunctured except for setigerous punctures; clypeus as long as paraclypei and with two subapical long pegs; each paraclypeus with a submarginal row of 6 setigerous punctures (3 pegs and 3 hair-like setae); eyes large, blackish brown, ocular index 1.85—2.25; ocelli reddish brown, interocellar distance about 5—7 times the distance of ocellus from eye; antennae brown, 2nd segment minute; rostrum brown, surpassing the middle of mesosternum.

Pronotum impunctured except for about a dozen small punctures forming a postmedian transverse row, and a few tiny punctures on the posterior lobe; umbones slightly swollen; each lateral margin with 3 submarginal setigerous punctures.

Scutellum with distinct basal and lateral rows of punctures; disc with a few punctures (less than 10).

Corium generally almost impunctured; clavus with two incomplete rows of punctures; mesocorium with one complete row of punctures paralleling clavo-corial suture, and with several punctures in apical part; exocorium with several punctures arranged in a row paralleling mesocorium; membrane browned, semihyaline, broader than abdomen and surpassing its tip.

Propleuron impunctured; evaporatoria typical for the genus; abdominal sternites smooth and polished, laterally with tiny punctures bearing short brown hairs.

Legs not specifically modified.

Measurements (in mm): body length 2.90—3.20; body width 1.61—1.71; head length 0.49—0.56; head width 0.67—0.70; pronotum length 0.85—0.90; pronotum width 1.54—1.59; scutellum length 0.78—0.85; scutellum width 0.95—0.98; antennal segments: 0.12—0.14 : 0.05—0.07 : 0.29—0.31 : 0.25—0.28 : 0.36—0.39.

Type material

Holotype female: RMNH/HH379A, MOLUCCAS: BACAN, Sibela Range, alt. m 650, 30—01.vi—vii.1985, J. Huijbregts; multistr evergr forest, 2 human excr traps; in the collection of NNHM. Paratypes 2 females: 1 female: RMNH/HH379A, MOLUCCAS: BACAN, Sibela Range, alt. m 650, 30—01.vi—vii.1985, J. Huijbregts; multistr evergr forest, 2 human excr traps; 1 female: RMNH/HH373, MOLUCCAS: BACAN, Sibela Range, alt. m 850, 28—04.vi—vii.1985, J. Huijbregts; multistr evergreen forest, window trap; 2 paratypes in the collection of NNHM, 1 paratype in my collection.

Comparative notes

The new species can be at once separated from all other members of the genus known from Oriental and Australian Regions by highly polished, almost impunctured dorsal surface of the body (fig. 4).

In general appearance it is somewhat similar to *Ch. peterseni* Froeschner (Bismarck Archipelago and New Guinea) and *Ch. rolandi* Lis (New Guinea), but is decidedly smaller (*bacanicus* 2.9—3.2 mm, the other two species 4.4—5.0 mm in length), and possesses an almost impunctured mesocorium (*bacanicus* — one row of punctures paralleling the clavo-corial suture, and a few punctures in its apical part; *peterseni* and *rolandi* — two rows of punc-

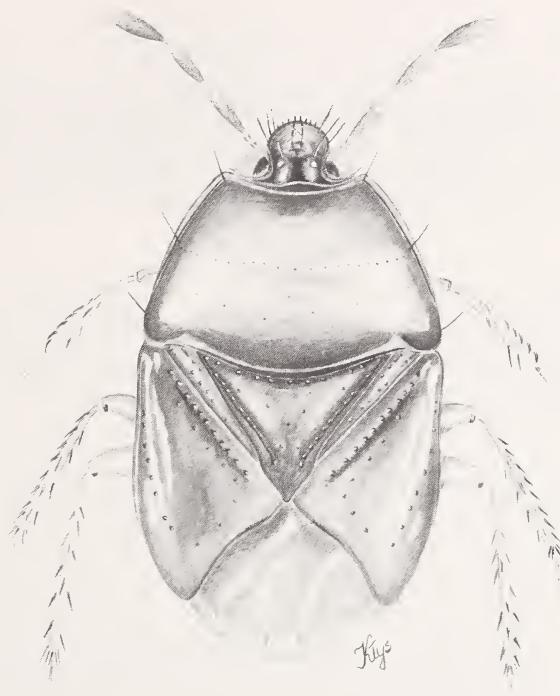


Fig. 4: *Chilocoris bacanicus* n. sp., general habitus.

tures paralleling the clavo-coral suture, and numerous well visible punctures in its apical half. Additionally, these three species differ in ocular index (*bacanicus* 1.85–2.25, *peterseni* 2.40–2.60, *rolandi* 3.1).

Unfortunately males of the new species are unknown, therefore I was not able to compare genital structures of these three species.

Chilocoris barbareae Lis

Chilocoris barbareae Lis, 1991, p. 301.

Material examined

1 female: AUSTRALIA: N. Territory, Alice Springs, 14.ii.1966; J. A. Grant, B. M./CSIRO Expedition, B. M. 1973–346; in the collection of BMNH.

Remarks

The species was described from Sulawesi (Lis 1991); recently it was recorded also from New Guinea (Lis 1993b). The present record is the first from the Australian continent.

Chilocoris biroi Horváth

Chilocoris biroi Horváth, 1919, p. 257 — Lis, 1993b, p. 26.

Material examined

1 male: AUSTRALIA: Redlynch-Queensland, xii.1938, B. M. 1949–61, F. R. Sternitzky; Papuan-Australian Exp., B. M. 1949–61; in the collection of BMNH.

Remarks

Up to date the species was known only from New Guinea by the lectotype female and paralecotype larva. The present male specimen collected in Australia agrees well with the lectotype female, but is somewhat larger — body length 4.02 mm, body width 2.06 mm (lectotype female — 3.21 & 2.02, respectively). The ocular index amounts 1.66 (lectotype female — 1.94). The shape of the paramere (fig. 3) confirms the close relationship of *Ch. biroi* and *Ch. vagauensis* Lis, as was pointed out previously on the basis of female morphological characters (Lis 1993 b).

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Zusammenfassung

Die ersten Repräsentanten der Gattung *Chilocoris* Mayr aus dem australischen Gebiet werden vorgestellt. Drei neue Arten, *Chilocoris australis* n. sp. aus Australien, *Chilocoris tasmanicus* n. sp. aus Tasmanien und *Chilocoris bacanicus* n. sp. aus Maluku werden beschrieben und mit verwandten Arten verglichen.

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